

**Systems for an Interservice Exercise Measurement  
and Feedback System: List of Doctrinally Based  
Tasks for the Close Air Support System**

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19960919 039

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**August 1996**


**United States Army Research Institute for the Behavioral and Social Sciences**

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# REPORT DOCUMENTATION PAGE

Form Approved  
OMB No. 0704-0188

Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington DC 20503.

1. AGENCY USE ONLY (Leave blank)		2. REPORT DATE August 1996	3. REPORT TYPE AND DATES COVERED Interim Report 07/17/92 - 10/16/94
4. TITLE AND SUBTITLE Systems for an Interservice Exercise Measurement and Feedback System: List of Doctrinally Based Tasks for the Close Air Support System			5. FUNDING NUMBERS MDA903-92-D-0075-0006 3414 CO3 665803 D730
6. AUTHOR(S) James T. Root Michael J. Creen			
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) BDM FEDERAL INC. DOD CENTER MONTEREY BAY 400 GIGLING ROAD SEASIDE, CA 93955			8. PERFORMING ORGANIZATION REPORT NUMBER
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES) U.S. ARMY RESEARCH INSTITUTE FOR THE BEHAVIORAL AND SOCIAL SCIENCES 5001 EISENHOWER AVENUE ALEXANDRIA, VA 22333-5600			10. SPONSORING/MONITORING AGENCY REPORT NUMBER  Contractor Report 96-54
11. SUPPLEMENTARY NOTES The COR is Michael R. McCluskey. This report is published to meet legal and contractual requirements and may not meet ARI's scientific or professional standards for publication.			
12a. DISTRIBUTION/AVAILABILITY STATEMENT APPROVED FOR PUBLIC RELEASE; DISTRIBUTION IS UNLIMITED.			12b. DISTRIBUTION CODE
13. ABSTRACT (Maximum 200 words) Two primary sources were identified to assist in determining critical synchronizing aspects: Doctrinal literature and staff cadre from a variety of Army and Air Force commands and schools. The critical synchronizing aspects of Close Air Support were defined to be critical battle tasks that must be performed to synchronize Close Air Support with other assets and actions on the battlefield. An independent list of critical battle tasks were derived from each source and then collated to form a master list. This master list will be used as the foundation for further interviews and analysis of Close Air Support (CAS) operational, or experience based, aspects. At the tactical level the less than effective use of Close Air Support appears to arise from conflicting priorities, uncoordinated planning cycles, and ad hoc targeting. Conflicting priorities are capable of resolution if understood by all components and addressed early in the planning process. Uncoordinated planning cycles may be ameliorated by a more decentralized air command and control. Issues that degrade the utility of CAS will continue to be explored and developed.			
14. SUBJECT TERMS Fire Support Coordination Line (FSCL), Restricted Operations Zone (ROZ), Unmanned Air Vehicles (UAVs), Tactical Air Control Party (TACP), Air Tasking Order (ATO)			15. NUMBER OF PAGES
			16. PRICE CODE
17. SECURITY CLASSIFICATION OF REPORT UNCLASSIFIED	18. SECURITY CLASSIFICATION OF THIS PAGE UNCLASSIFIED	19. SECURITY CLASSIFICATION OF ABSTRACT UNCLASSIFIED	20. LIMITATION OF ABSTRACT  UNLIMITED

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## **List of Doctrinally Based Battle Tasks for the Close Air Support System**

### **INTRODUCTION**

Two primary sources were identified to assist in determining critical synchronizing aspects: Doctrinal literature and staff cadre from a variety of Army and Air Force commands and schools. The critical synchronizing aspects of Close Air Support were defined to be critical battle tasks that must be performed to synchronize Close Air Support with other assets and actions on the battlefield. Independent lists of critical battle tasks were derived from each source and then collated to form a master list. This master list will be used as the foundation for further interviews and analysis of Close Air Support operational, or experience based, aspects.

### **I. DOCTRINAL SOURCES**

#### **Literature Source List**

Literature, generally in the form of Field Manuals and Standard Operating Procedures, was reviewed for critical tasks and sequence of activities and events. Information from these sources provided the foundation for the subsequent collection process. The literature source list that follows shows the primary documents available. It does not include classified documents or a myriad of supplements, circulars, and other supporting papers.

TACM 2-1	Tactical Air Operations (Ch 4)
TACM 3-1 VI	General Planning and Employment Considerations
TACM 3-1 V8	Forward Air Controller
TACR 55-45	Tactical Air Force Headquarters and the Tactical Air Control Center
TACR 55-46	The Tactical Air Control System (TACS) - Air Support Operations Centers (ASOC) and Tactical Air Control Parties (to be replaced by ACC55-8)
TACP 50-20 (FM 90-21)	JAAT Multi-Service Procedures for the Joint Air Attack Team Operations
TACP 50-22	Tactical Air Control Party/Fire Support Team Close Air Support Operations
TACP 50-28 (FM 90-20)	J-Fire Multi-Service Procedures for the Joint Application of Fire Power
TACP 50-36	Joint Concept and Procedures for Close Air Support in the Rear Battle
TACP 50-39 (FM 90-17)	Beacon Multi-Service Procedures for Radar Beacon Operations
TACP 55-51	TACP Hand Book (will be replaced by MCM 3-3)
AFM 1-1	Basic Aerospace Doctrine of the United States Air Force

FACT BOOK	355th Wing Combat Liaison
FM 71-100	Division Operations
FM 100-5	Operations
FM 100-26	Air Ground Operations System
FM 1-111	Aviation Brigade
FM 44-31	Tactics, Techniques, and Procedures: Avenger Squad Operations
FM 44-46	Manpads Platoon and Section Operations
FM 100-103	Army Airspace Command and Control in a Combat Zone

## Interview List

Structured interviews were conducted with a wide variety of Army and Air Force commands, schools, and other appropriate agencies. The purpose of these discussions was to determine how the system was structured, the key players and their actions, and how all the players envisioned the application of CAS. The focus of these interviews was the determination of coordinating or synchronization points between all the forces involved and the identification of tasks performed to ensure synchronization..

Instructor Staff	Air Ground Operations School (AGOS), Hurlburt AFB
Selected Staff Members	Tactical Air Control Party School, Hurlburt AFB
Army Coordinator	Blue Flag, Hurlburt AFB
Program Manager	ACMI, Eglin AFB
Selected Staff Members	Air-Forward Air Controller School, Davis Monthan AFB
Selected Staff Members	AO-10 School, Davis Monthan AFB
Selected Staff Members	549th Joint Training Squadron (Air Warrior I), Nellis AFB
Observer-Controller Cadre	57th Test Group/PRO-10, Nellis AFB
	Det 1, 549 Joint Training Squadron (Raven Team), National Training Center
Selected Staff Members	Army Aviation School, Ft. Rucker
Project Officer	Army Air Traffic Control Agency, Ft. Rucker
Contractor	Air Net Facility, Ft. Rucker
Selected Staff Members	School of Command Preparation, Ft. Leavenworth
Selected Staff Members	Air Force Element, CAC-T, Ft. Leavenworth
Selected Staff Members	Joint Programs Office, Air Combat Command, Ft. Leavenworth
Selected Staff Members	Concepts and Doctrine Directorate, C&GSC, Ft. Leavenworth
Selected Staff Members	Fire Support Combined Arms Doctrine, Ft. Sill
Selected Staff Members	Combined Arms and Tactics Department, Ft. Bliss
Instrumentation Officer	Training Analysis and Feedback, National Training Center

## II. EMERGING ISSUES

Examining the doctrinal aspects of Close Air Support highlighted several areas that could pose potential problems in achieving synchronization within the CAS arena. Three

of these appear to be important enough that they are briefly presented in this preliminary report:

Capabilities addresses the enhanced weapon systems now available and their impact on the traditional CAS coordinating boundaries and missions.

Joint Planning Sequence provides a short discussion on the separate Army and Air Force planning cycles and the difficulty encountered in synchronizing events to meet battlefield conditions.

Tactical Priorities of Close Air Support underlines the different target priorities from the Army and Air Force perspective.

## **Capabilities**

Coordinating Measures: A variety of coordination measures have been in effect for several years which provide well defined boundaries necessary for airspace management. Foremost of these is the Fire Support Coordination Line (FSCL) which essentially states the depth of artillery coverage over the battlefield. The coordinating altitude states the altitude that separates rotary wing from fixed wing aircraft. Other measures, such as the Restricted Operations Zone (ROZ), identify three dimensional no-fly/no-fire areas. All these boundaries are designed to deconflict airspace and provide a measure of synchronization among the air and ground components utilizing the airspace.

Army Capabilities: The Army has a variety of elements competing for airspace at the forward edge of the battle area: Aviation assets, indirect fires, air defense artillery, and unmanned air vehicles. The introduction and enhanced capabilities of all these elements have further complicated an already complex arena.

The two basic types of rotary wing aviation assets are lift and attack. Lift moves personnel and equipment throughout the battle area while attack elements serve as an airborne maneuver force. All helicopters are limited by Theater agreements a pre-designated altitude that keeps their activities within 100 to 300 feet of the ground.

Indirect fire assets consist of mortars, artillery, and MLRS (Multiple Launched Rockets). Mortars have a high trajectory and limited range (5 kilometers). They are, however, very mobile and remain close to the maneuver forces. Artillery can range out to about 20 kilometers and, while mobile, is positioned well behind the FLOT and typically moves by echelon to pre designated firing positions. The improved howitzer (HIP) will allow guns to move and position themselves independently of one another. MLRS batteries are similar to artillery in their positioning but their trajectory and range

(30 kilometers) exceed the normal coordinating boundaries (i.e. coordinating altitude and FSCL) previously established between the air and ground forces.

Unmanned Air Vehicles (UAVs) are small, remotely controlled aircraft equipped with video cameras. Their mission is to provide the ground force a real time, airborne TV view of an area. For airspace management purposes, they are allocated a block of airspace much the same as if they were manned aircraft.

Air Defense Artillery in support of a typical maneuver brigade consists of Chaparral and Stinger missiles. Chaparral missiles are mounted on a tracked chassis and are equipped with a variety of target acquisition radar systems. The Chaparral weapon system is normally found at division and brigade echelons. The Stinger is a shoulder fired weapon typically found at echelons below brigade. These weapon systems provide about a 5 kilometer umbrella over the ground forces. ADA weapons of the future, such as Avenger, will have similar airspace requirements.

**Air Force Capabilities:** There are two primary aircraft designated for CAS missions: The F16 and the A10. The F16 is a multi-purpose aircraft capable of air to air combat, strategic bombing, and CAS. Its airspeed is roughly 600 mph. The A10, on the other hand, is a slow moving (about 300 mph) aircraft specifically designed for the CAS role.

**CAS Munitions:** The primary weapon of the A10 is its 30mm gun around which the rest of aircraft was built. The F16 carries air to air missiles and a 20mm gun. In addition, both aircraft carry three basic types of CAS ordnance - missiles, bombs, and cluster munitions. The Maverick missile is designed to destroy hard targets such as tanks and bunkers. Four of these missiles are normally carried by each aircraft with a maximum load being six. Bombs come in two sizes (500 lbs and 2000 lbs) and two types. Gravity bombs (GPB) are guided by the basic ballistic attributes of velocity and altitude and are considered area weapons. Laser bombs (LGB) are guided by lasers from other aircraft or the ground and are used against hard targets such as bunkers. Up to six bombs can be carried per aircraft to a maximum weight of 8,000 lbs. Cluster munitions are area weapons and include various tailored packages of bomblets and mines.

**CAS Tactics:** As a fast attack aircraft the F16 relies on its speed and weapon stand-off capabilities to strike ground targets. Typically, this allows for missile and bomb release at distances beyond five miles from the target - essentially lobbing the bomb forward. An on board computer calculates the trajectory based on a variety of factors including height and speed of the aircraft. The 20mm gun is considered little better than a bayonet. Depending on the distance from the airfield, the normal on-station time for an F16 is 15 to 20 minutes.

The A10 is too slow to achieve much stand-off with any weapon except the Maverick missile. To attack a ground target requires over-flight and reliance on maneuverability



and sturdy construction for survival. Using the 30mm gun, the A10's primary weapon, causes the aircraft to move in even closer. The A10 has a typical on station time of 45 to 60 minutes.

**CAS Targeting:** Both aircraft rely on Forward Air Control target identification. Laser designators ensure additional accuracy. In a linear and open battlefield such as experienced in the Gulf War, neither aircraft had much difficulty identifying targets. Fratricides occurred when no Tactical Air Control Party (TACP) was present and when ground elements drifted beyond pre-designated boundaries. Since drifting ground units are a common occurrence, the presence of a TACP and the ability to identify the ground elements is critical. This is particularly true in a theater where there is heavy vegetation and/or built-up areas. Stand-off targeting in these areas will still be available but only after a target has been positively identified. In the absence of a TACP, that may only be possible by visual observation from the attacking aircraft. Such an environment may negate the CAS capabilities of the F16 and require the use of the A10.

## Joint Planning Sequence

**Planning Concept:** This section discusses the parallel planning cycles for the air and ground forces. Conceptually, the air planning cycle supports the *operational* plan (which in the Gulf War included all combat operations in support of the liberation of Kuwait). However, the air planning cycle may or may not directly support the ground *tactical* plan. This is due to the timing of the air and ground planning cycles and the speed of ground combat. The following comments outline how both planning processes work.

**Army Organization:** In order to understand the flow it is first necessary to understand Army organizational levels. For simplicity, the Army organization for the Gulf War will serve as the illustration. At the top was the theater command, which was a joint organization staffed by members of all services. Under this theater command were the various service components. The Army component was commanded by 3rd Army. Under 3rd Army were two corps, VII Corps and XVIII Airborne Corps. Each corps had three divisions and each division had three brigades of three battalions. For purposes of this study it is not worthwhile to step below battalion or conduct a detailed discussion of the myriad of support forces present at all these echelons.

**Air Force Organization:** At each Army battalion, brigade, and division there is a Tactical Air Control Party (TACP) led by an Air Force Air Liaison Officer (ALO). These elements operate in coordination with the echelon's fire support element and the G3/S3 Air. These ad hoc teams form the Army-Air Command and Control (A2C2) elements at each echelon. The corps A2C2 element is called the Air Support Operations Center (ASOC) and it provides the approving authority for all subordinate TACP CAS requests.

**CAS Request:** There are two types of requests for CAS - Preplanned and Immediate. An immediate request is sent directly back to the ASOC at corps headquarters. If approved, aircraft which are already allocated to the corps are diverted to meet the request. A preplanned request is submitted up through fire support channels to the Air Force theater command. The specific agency which handles such requests is the Air Operations Center (AOC). Aircraft to meet the request are then allocated based on priorities and availability and are formally given the mission in the Air Tasking Order.

**Air Force Planning Cycle:** The Air Force planning cycle is roughly 30 hours depending on the theater and results in an Air Tasking Order (ATO). Based on the theater operational plan and targets requested from subordinate commands, the air component commander (in the Gulf War all air forces from all services were under this joint command) develops a target list. The targets are prioritized and compared to requirements, such as support to the ground tactical plan. Appropriate assets are then allocated to meet the requirements. This is translated into specific air sorties which are assigned specific targets, some of which are Close Air Support missions. These are stated in the Air Tasking Order which is published daily.

**Army Planning Cycle:** While Army missions (attack, defend, etc.) are assigned based on objectives and are typically not time dependent except for synchronization reasons, some planning and preparation time is necessary at each echelon. The pace of the action at the Combat Training Centers is fairly close to that which could be expected in a war. In this environment a battalion has roughly 24 hours to plan and prepare for a mission (attack, defend, etc.). A brigade has slightly more, perhaps 36 hours. Under optimum conditions, a division would have between 48 and 72 hours while a corps would have an additional 12-24 hours beyond that.

Due to the time constraints, it is unlikely that a battalion or brigade would be able to request preplanned CAS. They must rely on preplanned requests made by division or corps. Even at that level, however, CAS targeting information would be based on two day old intelligence estimates. While this reality is understood by both the Army and Air Force, the intelligence picture does provide the air planners with probable target types (fortified emplacements, armor vehicles, etc.) and a rough outline of battlefield conditions.

### **Tactical Priorities**

**Air Force CAS Priorities:** The Air Force priority is the destruction of enemy air defense assets that have the potential to destroy their CAS assets. In the absence of outright destruction of enemy air defenses, air forces will at least seek to neutralize them by creating an ADA free air corridor to the target or by flying at such altitude as to take their aircraft out of harms way. This is not a slap at the courage of pilots but survival is a real consideration and pilots and aircraft are a finite resource.

Once the enemy ADA has been neutralized the Air Force considers large troop or armor concentrations as their most productive target. These clusters can be easily identified and are well within the capabilities of the aircraft ordnance. Individual and camouflaged positions such as bunkers and vehicles are hard to find and hit, and normally not considered a worthwhile trade-off for an aircraft.

**Army CAS Priorities:** The Army priorities for CAS normally start with those systems that can kill soldiers. At the top of the list are enemy artillery batteries, command and control sites, and dug-in armor and troop positions. Enemy air defense forces are typically far down the page. Thus, Army priorities are the opposite of Air Force priorities - with one exception. Enemy concentrations.

In order for enemy ground forces to conduct an attack or reinforce a threatened location, they must mass. Since no friendly ground commander charged with holding or seizing an objective wants to fight endless waves of fresh enemy forces arriving from the rear, he plans on interdicting the battlefield. His most effective weapon for doing this is aircraft. They have a better view, they have the range, and they are configured to attack these kinds of targets. The problem is that this type of enemy array only happens at the very early or very late stages of a battle. Further it is extremely difficult to predict ahead

of time exactly when and where such concentrations will occur. Under many conditions, it may never be apparent to the ground commander.

## **Conclusion**

At the tactical level the less than effective use of Close Air Support appears to arise from conflicting priorities, uncoordinated planning cycles, and ad hoc targeting. Conflicting priorities will continue to remain an issue, but one capable of resolution if understood by all components and addressed early in the planning process. Uncoordinated planning cycles may be ameliorated by a more decentralized air command and control. Ad hoc targeting stems, in a large measure, from a lack of understanding by ground commanders of air capabilities and by air commanders of the ground combat situation. These issues and others that potentially degrade the utility of Close Air Support will continue to be explored and developed as a part of this study.

### **III. CRITICAL BATTLE TASK LISTS**

Two preliminary doctrinal task lists have been developed at brigade level, one for the ground component and one for the air component. Both lists identify the task, the coordinating agencies, and the reference. Tasks were derived from Army and Air Force doctrinal literature and from subject matter experts from locations and literature identified earlier in this paper. Individual lists from each source were developed. All these task lists were then collated and refined to produce the two candidate battle task lists identified below. Standards, conditions, and elements of information for each task will be presented in a later report.

The ground component list focuses on the actions of the TACP and its synchronizing actions with the ground maneuver force and the air forces as they arrive during the execution phase. The air component list designates AFAC tasks. It is envisioned that both task lists will merge, particularly in the execution phase, as the operational aspects of CAS synchronization are analyzed during the later stages of this study.

## GROUND COMPONENT

### *Planning*

- |     |   |                    |
|-----|---|--------------------|
| 1.  | Determine the brigade mission ( <i>CDR</i> )                  | MCM 3-3, Vol. VIII |
| 2.  | Determine the commanders intent ( <i>CDR</i> )                | MCM 3-3, Vol. VIII |
| 3.  | Coordinate with S2 ( <i>S2</i> )                              | MCM 3-3, Vol. VIII |
| 4.  | Analyze the enemy situation ( <i>S2</i> )                     | MCM 3-3, Vol. VIII |
| 5.  | Determine enemy ADA threat ( <i>S2</i> )                      | MCM 3-3, Vol. VIII |
| 6.  | Analyze the friendly situation ( <i>S3</i> )                  | MCM 3-3, Vol. VIII |
| 7.  | Determine the ground scheme of maneuver ( <i>S3</i> )         | MCM 3-3, Vol. VIII |
| 8.  | Analyze fire support plan ( <i>FSO</i> )                      | MCM 3-3, Vol. VIII |
| 9.  | Analyze the terrain ( <i>S2</i> )                             | MCM 3-3, Vol. VIII |
| 10. | Analyze targets ( <i>S2,FSO</i> )                             | TAC Pam 50-20      |
|     | FM 6-20   |                    |
| 11. | Plan SEAD (Suppression of Enemy Air Defenses) ( <i>FSO</i> )  | TAC Pam 50-20      |
| 12. | Coordinate with ADA ( <i>ADO</i> )                            | TAC Pam 50-20      |
| 13. | Confirm Air capabilities with ground commander ( <i>CDR</i> ) | TAC Pam 50-20      |
| 14. | Establish air target priorities ( <i>S3, FSO</i> )            | FM 6-20            |
| 15. | Determine target identification procedures ( <i>FSO</i> )     | FM 6-20            |
| 16. | Establish positive control measures ( <i>S3 Air</i> )         | FM 71-3            |
| 17. | Initiate CAS request ( <i>S3 Air</i> )                        | FM 90-21           |
| 18. | Determine higher HQ priority of effort ( <i>Div. ALO</i> )    | MCM 3-3, Vol. VIII |
| 19. | Determine what air is planned ( <i>Div. ALO</i> )             | MCM 3-3, Vol. VIII |
| 20. | Determine what air is available ( <i>Div. ALO</i> )           | MCM 3-3, Vol. VIII |
| 21. | Determine air control measures ( <i>Div. ALO</i> )            | MCM 3-3, Vol. VIII |
|     | ATP 40, FM 100-103  |                    |
| 22. | Coordinate with Army Aviation ( <i>AVN</i> )                  | TAC Pam 50-20      |
|     | FM 1-111  |                    |
| 23. | Determine location of TACP elements ( <i>BN ALOs</i> )        | MCM 3-3, Vol. VIII |
| 24. | Designate subordinate responsibilities ( <i>BN ALOs</i> )     | MCM 3-3, Vol. VIII |

### *Preparation*

- |     |  |                    |
|-----|--|--------------------|
| 25. | Confirm communication capability ( <i>BN ALOs</i> )          | TAC Pam 50-20      |
|     |  | MCM 3-3, Vol. VIII |
| 26. | Confirm plan with FSCOORD ( <i>FSO</i> )                     | FM 6-20            |
| 27. | Confirm aircraft allocation ( <i>Div. ALO</i> )              | MCM 3-3, Vol. VIII |
| 28. | Confirm Airspace control measures ( <i>Div. ALO</i> )        | MCM 3-3, Vol. VIII |
| 29. | Deconflict airspace utilization ( <i>Div. ALO, BN ALOs</i> ) | FM 100-103         |

### *Execution*

- |     |   |                    |
|-----|---|--------------------|
| 30. | Brief 9 line to aircraft ( <i>air</i> )                       | MCM 3-3, Vol. VIII |
| 31. | Confirm ADA status ( <i>ADO</i> )                             | FM 100-103         |
| 32. | Confirm friendly locations with aircraft ( <i>air</i> )       | MCM 3-3, Vol. VIII |
| 33. | Confirm target locations with aircraft ( <i>air</i> )         | MCM 3-3, Vol. VIII |
| 34. | Determine BDA from aircraft ( <i>air</i> )                    | MCM 3-3, Vol. VIII |
| 35. | Request pilot intel ( <i>air</i> )                            | MCM 3-3, Vol. VIII |
| 36. | Disseminate pilot generated intel ( <i>air, CDR, S2, S3</i> ) | MCM 3-3, Vol. VIII |
| 37. | Coordinate FAC hand-off ( <i>air</i> )                        | MCM 3-3, Vol. VIII |
| 38. | Continuously update aircraft ( <i>air</i> )                   | TAC Pam 50-20      |
| 39. | Maintain commo ( <i>BN ALOs</i> )                             | TAC Pam 50-20      |
| 40. | React to delay of aircraft ( <i>Div. ALO, BN ALOs</i> )       | TAC Pam 50-22      |

## AIR COMPONENT

### *Planning*

- |   |                    |
|---|--------------------|
| 1. Understand situation in assigned AO ( <i>SQDN Brief</i> )          | MCM 3-3, Vol. VIII |
| 2. Assess the enemy situation ( <i>SQDN Brief</i> )                   | MCM 3-3, Vol. VIII |
| 3. Determine enemy ADA threat ( <i>SQDN Brief</i> )                   | MCM 3-3, Vol. VIII |
| TAC Pam 50-20   |                    |
| 4. Determine the friendly situation ( <i>SQDN Brief</i> )             | MCM 3-3, Vol. VIII |
| 5. Confirm what air is planned ( <i>SQDN Brief</i> )                  | MCM 3-3, Vol. VIII |
| 6. Confirm what air is available ( <i>SQDN Brief</i> )                | MCM 3-3, Vol. VIII |
| 7. Determine the EW picture ( <i>SQDN Brief</i> )                     | MCM 3-3, Vol. VIII |
| 8. Understand air tactics to be used ( <i>SQDN Brief</i> )            | MCM 3-3, Vol. VIII |
| 9. Analyze the terrain ( <i>SQDN Brief</i> )                          | MCM 3-3, Vol. VIII |
| 10. Identify air control measures ( <i>SQDN Brief</i> )               | MCM 3-3, Vol. VIII |
| 11. Understand coordinating measures ( <i>SQDN Brief</i> )            | MCM 3-3, Vol. VIII |
| 12. Receive Intel update ( <i>SQDN/in flight</i> )                    | TACM 3-1 V8        |
| 13. Coordinate with airspace management agencies ( <i>in flight</i> ) | MCM 3-3, Vol. VIII |
| 14. Coordinate with Controller agencies ( <i>in flight</i> )          | TACM 3-1 V8        |
| 15. Coordinate with GFAC/TACP ( <i>TACP</i> )                         | TAC Pam 50-22      |
| 16. Understand ground scheme of maneuver ( <i>TACP</i> )              | TAC Pam 50-22      |
| 17. Determine location of fire support assets ( <i>TACP</i> )         | MCM 3-3, Vol. VIII |
| 18. Coordinate ADA control procedures ( <i>TACP</i> )                 | AGOS Notes         |
| 19. Coordinate with Army Aviation ( <i>TACP, Helo</i> )               | TAC Pam 50-22      |
| 20. Determine Ground Commanders priority targets ( <i>TACP</i> )      | MCM 3-3, Vol. VIII |
| 21. Analyze targets ( <i>TACP, S-2, FSO</i> )                         | MCM 3-3, Vol. VIII |
| 22. Establish air target priorities ( <i>CDR, FSO</i> )               | FM 6-20            |
| 23. Develop contingency plans ( <i>TACP, FSO</i> )                    | TACM 3-1 VI,       |
| FM 6-20   |                    |

### *Preparation*

- |  |                    |
|--|--------------------|
| 24. Confirm communications ( <i>TACP</i> )                                     | MCM 3-3, Vol. VIII |
| 25. Confirm aircraft allocation ( <i>Div. ALO</i> )                            | TACM 3-1 VI        |
| 26. Confirm Airspace control measures ( <i>Div. ALO, BN ALO, Helo, FSO</i> )   | TACR 55-46         |
| 27. Confirm friendly ADA status ( <i>ADO</i> )                                 | MCM 3-3, Vol. VIII |
| 28. Deconflict airspace ( <i>air, Div. ALO, BN ALO, FSO, S-3A, Helo, ADO</i> ) | TAC Pam 50-28      |
| 29. Confirm target marking procedures ( <i>air</i> )                           | TAC Pam 50-28      |
| 30. Match weapon with target ( <i>air</i> )                                    | MCM 3-3, Vol. VIII |
| 31. GFAC announces arrival of blue air ( <i>ALO, FSO, Helo</i> )               | MCM 3-3, Vol. VIII |



## *Execution*

- |     |   |                    |
|-----|---|--------------------|
| 32. | Update CAS at IP/CP ( <i>air</i> )                                    | MCM 3-3, Vol. VIII |
| 33. | AFAC gives 9 line (JFIRE) brief to fighters ( <i>air</i> )            | MCM 3-3, Vol. VIII |
| 34. | Confirm aircraft ordnance ( <i>air</i> )                              | TAC Pam 50-22      |
| 35. | Confirm friendly locations with aircraft ( <i>air</i> )               | TAC Pam 50-22      |
| 36. | Confirm target locations with aircraft ( <i>air</i> )                 | TAC Pam 50-22      |
| 37. | Identify target priorities to pilots ( <i>air</i> )                   | TAC Pam 50-22      |
| 38. | Confirm target approach ( <i>air</i> )                                | MCM 3-3, Vol. VIII |
| 39. | Confirm attack clearance from ground commander<br>( <i>ALO, CDR</i> ) | TAC Pam 50-28      |
| 40. | Direct attack on targets ( <i>air</i> )                               | TAC Pam 50-28      |
| 41. | Coordinate FAC hand-off ( <i>air</i> )                                | TAC Pam 50-28      |
| 42. | Continuously update aircraft ( <i>air</i> )                           | TAC Pam 50-28      |
| 43. | Maintain communications ( <i>BN ALOs</i> )                            | TAC Pam 50-28      |
| 44. | React to delay of aircraft ( <i>Div. ALO, BN ALOs</i> )               | TAC Pam 50-28      |
| 45. | Deconflict airspace<br>( <i>Div. ALO, BN ALO, FSO, ADO, S2, air</i> ) | TAC Pam 50-28      |
| 46. | Provide AF control during JAAT missions ( <i>air, Helo</i> )          | TAC Pam 50-20      |
| 47. | Respond to GFAC control ( <i>TACP</i> )                               | TAC Pam 50-22      |
| 48. | Determine BDA from aircraft ( <i>air</i> )                            | TAC Pam 50-22      |
| 49. | Request pilot observations ( <i>air</i> )                             | MCM 3-3, Vol. VIII |
| 50. | Disseminate pilot observations ( <i>air, CDR, S2, S3</i> )            | MCM 3-3, Vol. VIII |